Is hysteroscopy the best surgical approachfor removal of retained products of conception following surgical termination of pregnancy?

Noam Smorgick, Sergei Kostin, Tamar Tzur, Orna Levinsohn-Tavor, Ron Maymon, Zvi Vaknin.
Department of Obstetrics and Gynecology, Yitzhak Shamir (Assaf Harofe) Medical Center, Affiliated with Tel-Aviv University, Sackler school of Medicine, Israel.

Background

• Retained products of conception (RPOC) may occur following various types of delivery (vaginal or by cesarean section) and termination of pregnancy (medical or surgical).
• In cases of RPOC diagnosed following surgical termination of pregnancy (i.e., dilatation and curettage or suction curettage), a repeat curettage may be required.
• However, repeat curettage has been associated with high rates of intrauterine adhesions (up to 40%), and consequently with hypomenorrhea, infertility, and recurrent abortions (i.e., "Asherman's syndrome").
• More recently, the use of hysteroscopy for removal of RPOC has been advocated, with the aim of reducing the rates of postoperative intrauterine adhesions
• The technique of hysteroscopic allows for visualization of the RPOC mass in the uterine cavity , and thus for targeted instead of blind uterine curettage, possibly decreasing the trauma to the endometrium.

Objectives

In the current study, we sought to evaluate the rates of intrauterine adhesions in women undergoing hysteroscopy for removal of RPOC following surgical termination of pregnancy.

Methods

• We retrospectively reviewed all cases of RPOC who underwent hysteroscopic surgery in our department from 1/2013 to 12/2018.
• The cervix was dilated with Hegar's dilators up to 9.5 mm. The resectoscope electrosurgical loop (Versapoint bipolar system) was used for blunt separation of the RPOC mass from the uterine wall, with minimal or no electrosurgical current. NaCl 0.9% solution was used as a distension media
• Perioperative oral antibiotics were prescribed in all cases (typically Amoxicillin/clavulanic acid, 875 mg twice daily for 5 to 7 days). On discharge, patients were also prescribed hormonal treatment (consisting of 11 days of 2 mg estradiol valerate followed by 10 days of 2 mg estradiol valerate and 0.5 mg norgestrel). An intrauterine adhesion prevention gel (Hyalobarrier gel) was introduced into the uterine cavity at the conclusion of the operative hysteroscopy at the discretion of the surgeon and subject to availability.
• The postoperative intrauterine adhesions were evaluated by routine office diagnostic hysteroscopy, which was recommended to all patients 6 to 8 weeks after the operative hysteroscopy . The extent and severity of intrauterine adhesions were classified according to ESGE classification for intrauterine adhesions.

Results

- The study cohort included 85 women. The surgical findings on hysteroscopy for removal of RPOC are presented in Table 2.
- The time period from termination of pregnancy to the hysteroscopy for removal of RPOC was 1.5 ± 0.9 months, while the mean size of the RPOC mass was 1.9 ± 0.9 cm.
- We report a low rate of ~4% of intrauterine adhesions in women who underwent hysteroscopy for removal of RPOC following curettage for termination of pregnancy. In addition, both cases of intrauterine adhesions diagnosed were categorized as mild.

Table 1. Demographic and clinical characteristics of the study cohort

Parameter	Result
Age (years)	32.2 ± 6.2
Gravidity	3 (1-11)
Parity	1 (0-6)
History of cesarean section	16 (18.8)
Indication for termination of pregnancy	
Maternal request/fetal anomalies	46 (54.2)
Missed abortion	36 (42.3)
Suspected amnionitis	3 (3.5)
Timing of surgical termination of pregnancy	
Early (<12 gestational weeks)	57 (67.1)
Late (13 to 24 gest. weeks)	28 (32.9)
Clinical presentation at time of RPOC diagnosis	
Abnormal uterine bleeding	52 (61.2)
Asymptomatic ultrasound finding	24 (28.2)
Suspected infection	9 (10.6)

Data is shown as mean ± standard deviation or number (%)

Table 2. Surgical characteristics of women undergoing hysteroscopy for removal of RPOC

Parameter	Result
RPOC size on hysteroscopy (cm)	1.9 ± 0.9
Time period from termination of pregnancy to hysteroscopy (months)	1.5 ± 0.9
Hysteroscopic diagnosis of uterine anomalies	7 (8)
Administration of Hyalobarrier gel	34 (40.5)
Administration of intracervical vasopressin	2 (2.4)
Intraoperative complications (cervical suture)	3 (3.5)
Postoperative admission for fever	2 (2.4)
Postoperative intrauterine adhesions*	2/49 (4.1)
2 procedures required for RPOC removal	1 (1.2)

Data is shown as mean ± standard deviation or number (%)
*Calculated for 49 women who presented for postoperative hysteroscopy

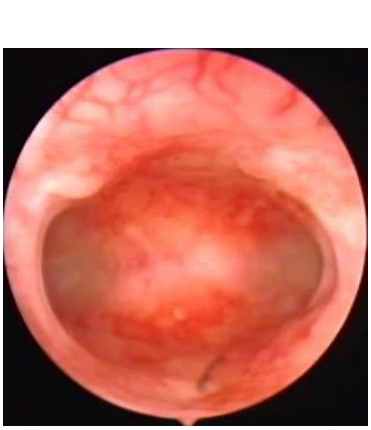

Figure 2. Normal diagnostic hysteroscopy 6 weeks after removal of RPOC by resectoscope

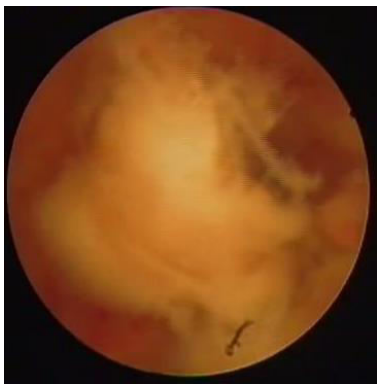

Figure 1. RPOC following surgical termination of pregnancy

Figure 3. Intrauterine adhesions in left ostium fallopian tube after removal of RPOC

Conclusions

Hysteroscopy for removal of RPOC following surgical termination of pregnancy is associated with low rates of postoperative intrauterine adhesions and may be advocated as the best surgical approach for these women.